SS52 THRU SS510

Surface Mount Schottky Barrier Recitifiers

Reverse Voltage - 20 to 100Volts
Forward Current - 5.0 Amperes

Features

- Low power loss, high efficiency
- For surface mounted applications
- Low forward voltage drop
- High surge capacity
- Meet UL flammability classification 94V-0

Mechanical Data

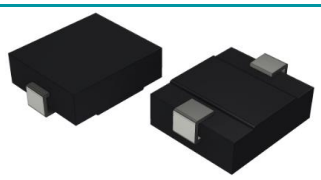
- Case: JEDEC SMC molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

Note: Products with logo HY or hy are made by HY Electronic (Cayman) Limited.

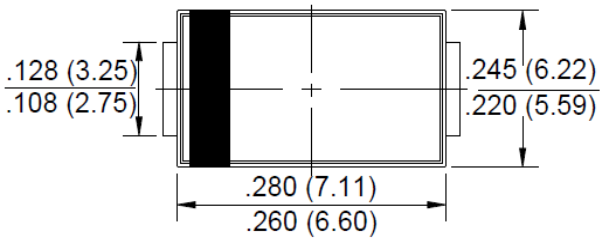
Applications

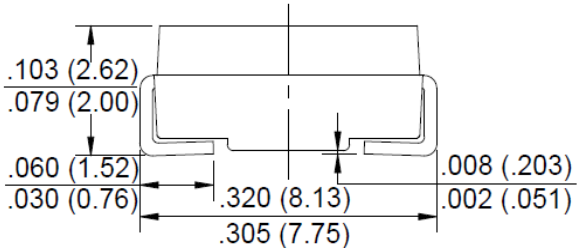
- For use in low voltage, high frequency inverters, polarity protection applications

SMC



RoHS COMPLIANT





Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristics	Symbol	SS52	SS53	SS54	SS55	SS56	SS58	SS510	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current @T_L=95 ℃	$I_{(AV)}$	5.0							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150							A
Peak Forward Voltage at 5.0A DC (Note1)	V_F	0.55			0.70		0.85		V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=100℃	I_R	1.0 50							mA
Typical Junction Capacitance (Note 2)	C_J	500			350				pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	80							℃/W
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	17							℃/W
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	15							℃/W
Junction Temperature Range	T_J	-55 to+150							℃
Storage Temperature Range	T_{STG}	-55 to+150							℃

Notes: 1. 300uS pulse width, 2%duty cycle.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
3. The typical data above is for reference only .

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Fig. 1 - Forward Current Derating Curve

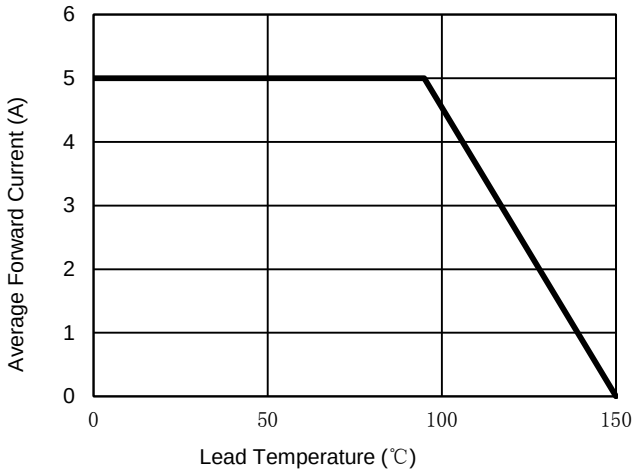


Fig. 2 - Maximum Non-Repetitive Surge Current

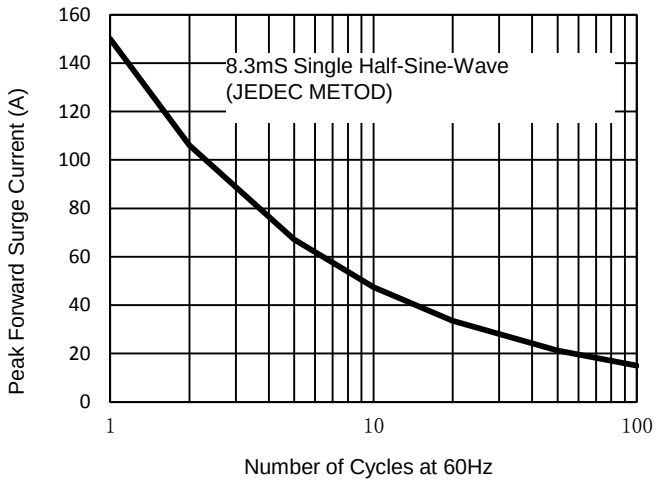


Fig. 3 - Typical Reverse Characteristics

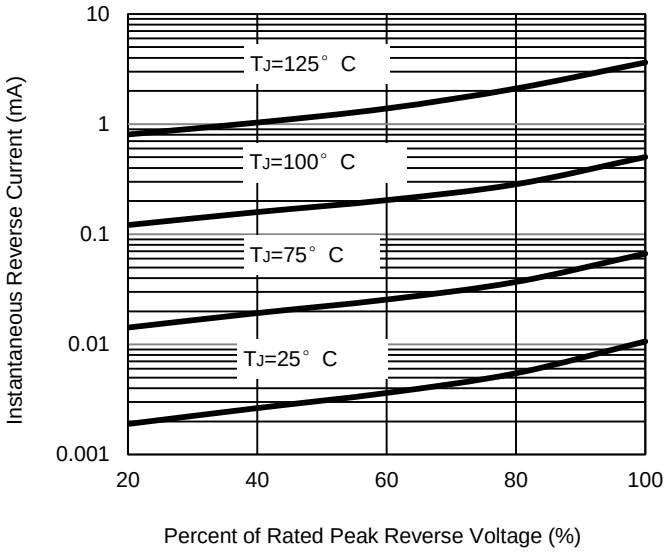


Fig. 4 - Typical Forward Characteristics

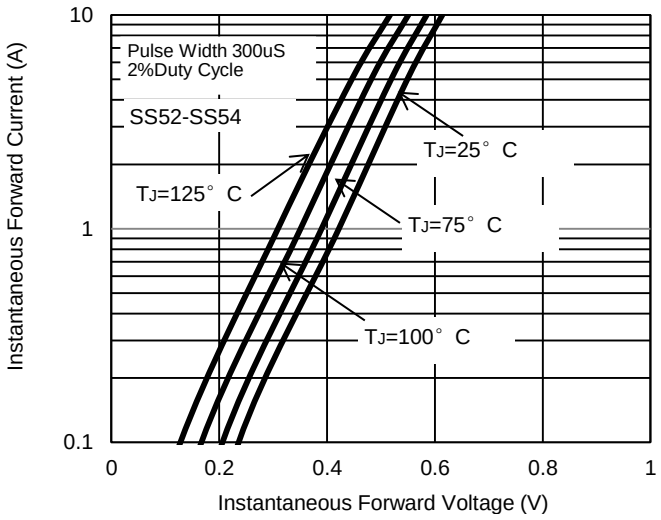


Fig. 5 - Typical Forward Characteristics

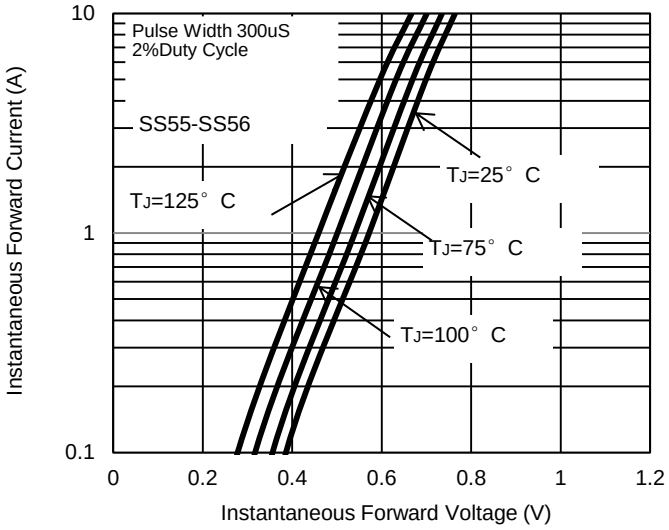
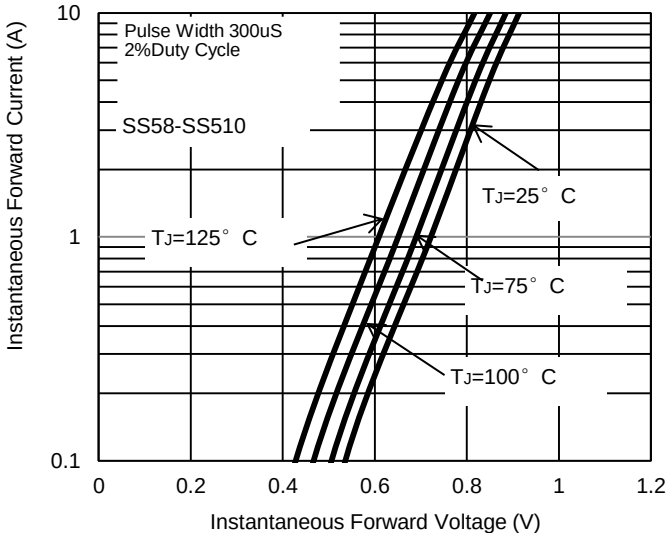


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.

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